

## 43. ETHICAL CONCERNS OF AI

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The paper discusses the potential benefits and drawbacks of artificial intelligence (AI), including bias in data and algorithmic design, ethical implications of AI decision-making, privacy concerns, and potential market monopolies. The need for ethical and regulatory frameworks is emphasized that prioritizes transparency, accountability, and fairness to govern the development and deployment of AI technology while considering potential downsides and maximizing its benefits for society.

Artificial intelligence (AI) has witnessed an exponential surge in popularity across diverse fields due to its ability to provide immense benefits. Nonetheless, being a nascent technology, AI does have certain limitations and drawbacks that require careful consideration. While numerous advocates opine that AI possesses the potential to impact the society positively, there exist legitimate apprehensions about its ethical, social, and economic implications. As such, it is crucial to undertake a scientific analysis of AI's impact to arrive at an informed and comprehensive understanding of its potential benefits and limitations.

One of the principal concerns associated with the AI technology pertains to the issue of bias. The effectiveness of AI systems is contingent on the quality of the data on which they are trained. However, if the data is biased, the AI will be biased as well. For instance, in 1998, the US government devised the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) algorithm to identify individuals with a high likelihood of committing crimes. Nevertheless, this approach was found to be flawed, with African-American men being falsely accused at a disproportionately higher rate than white men [1]. Similarly, Amazon's AI-powered recruitment system was discovered to be biased against women and ethnic minorities [2], most likely because the neural network was trained on data primarily featuring European-looking men. So, the root of this problem lies in the data on which AI is trained, which often contains inherent biases and prejudices. It is therefore imperative to address these issues in the data used to train AI systems to ensure the ethical and equitable deployment of the AI technology.

Another issue is the ethical implications of AI decision-making, particularly in critical situations. For example, the emergence of self-driving cars has raised questions about the ethics of programming machines to make life-or-death decisions. In a hypothetical scenario where a self-driving car has to choose between swerving into a car or a motorbike to avoid hitting a large object in front of it, the dilemma is controversial. There is no easy answer, and different people would make different decisions based on their individual moral beliefs. However, AI systems must be programmed in advance to make these decisions, which raises concerns about how these ethical judgments are being made.

Privacy is another significant concern with AI. For instance, Hello Barbie, a doll equipped with AI that can converse with children, has raised questions about the privacy implications of training a neural network on the personal stories children may share with the toy. While the toy's manufacturers may not be using this data to feed advertisers, they are still attempting to create deep emotional bonds between children and their toys, which could have problematic implications. Additionally, the collection and processing of personal information by AI systems used for security purposes can raise concerns about data breaches, identity theft, and financial fraud.

One of the significant drawbacks of AI is the potential for large corporations to establish monopolies in the market through technology [3]. AI's sophisticated capabilities can exacerbate inequalities not only among producers but also between nations. Moreover, many examples have demonstrated that AI has numerous disadvantages, with most of the issues stemming from human factors such as biases in data collection and algorithmic design.

Furthermore, the concentration of power in the hands of a few dominant firms in the AI industry could potentially stifle competition, limit innovation, and exacerbate existing economic and social disparities.

The development and deployment of AI technology must be governed by ethical and regulatory frameworks that prioritize transparency, accountability, and fairness. Such frameworks should also consider the potential impact of AI on employment, privacy, and human rights, among other critical areas. It is therefore essential to address the potential downsides of AI while maximizing its potential benefits for society.

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